

# Jrg-Dieter Schulzke

## List of Publications by Citations

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103  
papers

9,882  
citations

45  
h-index

99  
g-index

108  
ext. papers

11,176  
ext. citations

5.4  
avg, IF

5.76  
L-index

#	Paper	IF	Citations
103	Complex phenotype of mice lacking occludin, a component of tight junction strands. <i>Molecular Biology of the Cell</i> , <b>2000</b> , 11, 4131-42	3.5	889
102	Intestinal permeability--a new target for disease prevention and therapy. <i>BMC Gastroenterology</i> , <b>2014</b> , 14, 189	3	810
101	Interleukin-13 is the key effector Th2 cytokine in ulcerative colitis that affects epithelial tight junctions, apoptosis, and cell restitution. <i>Gastroenterology</i> , <b>2005</b> , 129, 550-64	13.3	809
100	Interleukin-13 Is the Key Effector Th2 Cytokine in Ulcerative Colitis That Affects Epithelial Tight Junctions, Apoptosis, and Cell Restitution. <i>Gastroenterology</i> , <b>2005</b> , 129, 550-564	13.3	654
99	Claudin-2 expression induces cation-selective channels in tight junctions of epithelial cells. <i>Journal of Cell Science</i> , <b>2002</b> , 115, 4969-76	5.3	611
98	Altered tight junction structure contributes to the impaired epithelial barrier function in ulcerative colitis. <i>Gastroenterology</i> , <b>1999</b> , 116, 301-9	13.3	437
97	Claudin-2, a component of the tight junction, forms a paracellular water channel. <i>Journal of Cell Science</i> , <b>2010</b> , 123, 1913-21	5.3	291
96	Epithelial tight junctions in intestinal inflammation. <i>Annals of the New York Academy of Sciences</i> , <b>2009</b> , 1165, 294-300	6.5	259
95	Tricellulin forms a barrier to macromolecules in tricellular tight junctions without affecting ion permeability. <i>Molecular Biology of the Cell</i> , <b>2009</b> , 20, 3713-24	3.5	252
94	Downregulation of epithelial apoptosis and barrier repair in active Crohn's disease by tumour necrosis factor alpha antibody treatment. <i>Gut</i> , <b>2004</b> , 53, 1295-302	19.2	230
93	Leaks in the epithelial barrier caused by spontaneous and TNF-alpha-induced single-cell apoptosis. <i>FASEB Journal</i> , <b>2000</b> , 14, 1749-53	0.9	205
92	Mechanisms of diarrhea in collagenous colitis. <i>Gastroenterology</i> , <b>2002</b> , 123, 433-43	13.3	199
91	Tight junction, selective permeability, and related diseases. <i>Seminars in Cell and Developmental Biology</i> , <b>2014</b> , 36, 166-76	7.5	179
90	Determinants of colonic barrier function in inflammatory bowel disease and potential therapeutics. <i>Journal of Physiology</i> , <b>2012</b> , 590, 1035-44	3.9	171
89	TNFalpha-induced and berberine-antagonized tight junction barrier impairment via tyrosine kinase, Akt and NFkappaB signaling. <i>Journal of Cell Science</i> , <b>2010</b> , 123, 4145-55	5.3	164
88	Claudin-3 acts as a sealing component of the tight junction for ions of either charge and uncharged solutes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2010</b> , 1798, 2048-57	3.8	155
87	The specific fates of tight junction proteins in apoptotic epithelial cells. <i>Journal of Cell Science</i> , <b>2004</b> , 117, 2097-107	5.3	139

86	Contribution of claudin-5 to barrier properties in tight junctions of epithelial cells. <i>Cell and Tissue Research</i> , <b>2005</b> , 321, 89-96	4.2	135
85	Epithelial tight junction structure in the jejunum of children with acute and treated celiac sprue. <i>Pediatric Research</i> , <b>1998</b> , 43, 435-41	3.2	132
84	Disrupted barrier function through epithelial cell apoptosis. <i>Annals of the New York Academy of Sciences</i> , <b>2006</b> , 1072, 288-99	6.5	131
83	Monocyte and M1 Macrophage-induced Barrier Defect Contributes to Chronic Intestinal Inflammation in IBD. <i>Inflammatory Bowel Diseases</i> , <b>2015</b> , 21, 1297-305	4.5	129
82	Epithelial barriers in intestinal inflammation. <i>Antioxidants and Redox Signaling</i> , <b>2011</b> , 15, 1255-70	8.4	117
81	Quercetin enhances epithelial barrier function and increases claudin-4 expression in Caco-2 cells. <i>Journal of Nutrition</i> , <b>2008</b> , 138, 1067-73	4.1	115
80	TNFalpha up-regulates claudin-2 expression in epithelial HT-29/B6 cells via phosphatidylinositol-3-kinase signaling. <i>Cell and Tissue Research</i> , <b>2009</b> , 336, 67-77	4.2	112
79	Cytokine-dependent transcriptional down-regulation of epithelial sodium channel in ulcerative colitis. <i>Gastroenterology</i> , <b>2004</b> , 126, 1711-20	13.3	99
78	TRPV4-mediated regulation of epithelial permeability. <i>FASEB Journal</i> , <b>2006</b> , 20, 1802-12	0.9	93
77	Regulation of mucosal structure and barrier function in rat colon exposed to tumor necrosis factor alpha and interferon gamma in vitro: a novel model for studying the pathomechanisms of inflammatory bowel disease cytokines. <i>Scandinavian Journal of Gastroenterology</i> , <b>2009</b> , 44, 1226-35	2.4	88
76	Claudin-17 forms tight junction channels with distinct anion selectivity. <i>Cellular and Molecular Life Sciences</i> , <b>2012</b> , 69, 2765-78	10.3	84
75	Celiac Disease: Role of the Epithelial Barrier. <i>Cellular and Molecular Gastroenterology and Hepatology</i> , <b>2017</b> , 3, 150-162	7.9	81
74	Therapeutic options to modulate barrier defects in inflammatory bowel disease. <i>Digestive Diseases</i> , <b>2009</b> , 27, 450-4	3.2	80
73	Na <sup>+</sup> absorption defends from paracellular back-leakage by claudin-8 upregulation. <i>Biochemical and Biophysical Research Communications</i> , <b>2009</b> , 378, 45-50	3.4	78
72	Transforming growth factor- $\beta$ 1a whey protein component, strengthens the intestinal barrier by upregulating claudin-4 in HT-29/B6 cells. <i>Journal of Nutrition</i> , <b>2011</b> , 141, 783-9	4.1	74
71	Functional crosstalk between Wnt signaling and Cdx-related transcriptional activation in the regulation of the claudin-2 promoter activity. <i>Biochemical and Biophysical Research Communications</i> , <b>2004</b> , 314, 1001-7	3.4	73
70	Epithelial barrier defects in HT-29/B6 colonic cell monolayers induced by tumor necrosis factor-alpha. <i>Annals of the New York Academy of Sciences</i> , <b>2000</b> , 915, 193-203	6.5	72
69	Ion transport in the experimental short bowel syndrome of the rat. <i>Gastroenterology</i> , <b>1992</b> , 102, 497-504	13.3	65

68	Oral and fecal <i>Campylobacter concisus</i> strains perturb barrier function by apoptosis induction in HT-29/B6 intestinal epithelial cells. <i>PLoS ONE</i> , <b>2011</b> , 6, e23858	3.7	63
67	Duodenal biopsies of HIV-infected patients with diarrhoea exhibit epithelial barrier defects but no active secretion. <i>Aids</i> , <b>1998</b> , 12, 43-51	3.5	63
66	Claudin-related intestinal diseases. <i>Seminars in Cell and Developmental Biology</i> , <b>2015</b> , 42, 30-8	7.5	62
65	Improved cell line IPEC-J2, characterized as a model for porcine jejunal epithelium. <i>PLoS ONE</i> , <b>2013</b> , 8, e79643	3.7	57
64	Altered ENaC expression leads to impaired sodium absorption in the noninflamed intestine in Crohn's disease. <i>Gastroenterology</i> , <b>2008</b> , 134, 1436-47	13.3	56
63	<i>Arcobacter butzleri</i> induces barrier dysfunction in intestinal HT-29/B6 cells. <i>Journal of Infectious Diseases</i> , <b>2009</b> , 200, 756-64	7	55
62	IL-1beta and TNFalpha regulate sodium absorption in rat distal colon. <i>Biochemical and Biophysical Research Communications</i> , <b>2004</b> , 317, 500-7	3.4	52
61	Ussing chamber for high-frequency transmural impedance analysis of epithelial tissues. <i>Journal of Proteomics</i> , <b>1997</b> , 35, 81-8		48
60	Supernatants of HIV-infected immune cells affect the barrier function of human HT-29/B6 intestinal epithelial cells. <i>Aids</i> , <b>2002</b> , 16, 983-91	3.5	48
59	Aerolysin from <i>Aeromonas hydrophila</i> perturbs tight junction integrity and cell lesion repair in intestinal epithelial HT-29/B6 cells. <i>Journal of Infectious Diseases</i> , <b>2011</b> , 204, 1283-92	7	47
58	The ginger component 6-shogaol prevents TNF-induced barrier loss via inhibition of PI3K/Akt and NF- $\kappa$ B signaling. <i>Molecular Nutrition and Food Research</i> , <b>2016</b> , 60, 2576-2586	5.9	44
57	$\alpha$ -Haemolysin of <i>Escherichia coli</i> in IBD: a potentiator of inflammatory activity in the colon. <i>Gut</i> , <b>2014</b> , 63, 1893-901	19.2	43
56	<i>Escherichia coli</i> alpha-haemolysin induces focal leaks in colonic epithelium: a novel mechanism of bacterial translocation. <i>Cellular Microbiology</i> , <b>2007</b> , 9, 2530-40	3.9	41
55	Active and passive involvement of claudins in the pathophysiology of intestinal inflammatory diseases. <i>Pflügers Archiv European Journal of Physiology</i> , <b>2017</b> , 469, 15-26	4.6	40
54	Water channels and barriers formed by claudins. <i>Annals of the New York Academy of Sciences</i> , <b>2017</b> , 1397, 100-109	6.5	40
53	Long-term response to gluten-free diet as evidence for non-celiac wheat sensitivity in one third of patients with diarrhea-dominant and mixed-type irritable bowel syndrome. <i>International Journal of Colorectal Disease</i> , <b>2017</b> , 32, 29-39	3	40
52	Inflamed pouch mucosa possesses altered tight junctions indicating recurrence of inflammatory bowel disease. <i>International Journal of Colorectal Disease</i> , <b>2009</b> , 24, 1149-56	3	40
51	Defective tight junctions in refractory celiac disease. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1258, 43-51	6.5	38

50	enters gut epithelial cells and impairs intestinal barrier function through cleavage of occludin by serine protease HtrA. <i>Gut Pathogens</i> , <b>2019</b> , 11, 4	5.4	38
49	Lactoferrin protects against intestinal inflammation and bacteria-induced barrier dysfunction in vitro. <i>Annals of the New York Academy of Sciences</i> , <b>2017</b> , 1405, 177-188	6.5	37
48	Perspectives on tight junction research. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1257, 1-19	6.5	37
47	Butyrate induces intestinal sodium absorption via Sp3-mediated transcriptional up-regulation of epithelial sodium channels. <i>Gastroenterology</i> , <b>2007</b> , 132, 236-48	13.3	37
46	Apoptosis and intestinal barrier function. <i>Annals of the New York Academy of Sciences</i> , <b>2000</b> , 915, 270-4	6.5	34
45	Mechanisms of epithelial barrier impairment in HIV infection. <i>Annals of the New York Academy of Sciences</i> , <b>2000</b> , 915, 293-303	6.5	34
44	Yersinia enterocolitica induces epithelial barrier dysfunction through regional tight junction changes in colonic HT-29/B6 cell monolayers. <i>Laboratory Investigation</i> , <b>2011</b> , 91, 310-24	5.9	31
43	Reversible opening of the blood-brain barrier by claudin-5-binding variants of Clostridium perfringens enterotoxinB claudin-binding domain. <i>Biomaterials</i> , <b>2018</b> , 161, 129-143	15.6	28
42	In Colon Epithelia, Clostridium perfringens Enterotoxin Causes Focal Leaks by Targeting Claudins Which are Apically Accessible Due to Tight Junction Derangement. <i>Journal of Infectious Diseases</i> , <b>2017</b> , 217, 147-157	7	26
41	Effects of quercetin studied in colonic HT-29/B6 cells and rat intestine in vitro. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1258, 100-7	6.5	26
40	Probing the cis-arrangement of prototype tight junction proteins claudin-1 and claudin-3. <i>Biochemical Journal</i> , <b>2015</b> , 468, 449-58	3.8	24
39	Curcumin Mitigates Immune-Induced Epithelial Barrier Dysfunction by. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	23
38	Gastrointestinal Tract As Entry Route for Hantavirus Infection. <i>Frontiers in Microbiology</i> , <b>2017</b> , 8, 1721	5.7	23
37	Ion transport and barrier function are disturbed in microscopic colitis. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1258, 143-8	6.5	22
36	Interleukin-13 affects the epithelial sodium channel in the intestine by coordinated modulation of STAT6 and p38 MAPK activity. <i>Journal of Physiology</i> , <b>2015</b> , 593, 5269-82	3.9	22
35	Epithelial barrier dysfunction in lymphocytic colitis through cytokine-dependent internalization of claudin-5 and -8. <i>Journal of Gastroenterology</i> , <b>2017</b> , 52, 1090-1100	6.9	21
34	Vitamin D in Acute Campylobacteriosis-Results From an Intervention Study Applying a Clinical Induced Enterocolitis Model. <i>Frontiers in Immunology</i> , <b>2019</b> , 10, 2094	8.4	20
33	Small intestinal permeability in older adults. <i>Physiological Reports</i> , <b>2014</b> , 2, e00281	2.6	20

32	High-resolution analysis of barrier function. <i>Annals of the New York Academy of Sciences</i> , <b>2009</b> , 1165, 74-81	6.5	20
31	Zinc treatment is efficient against Escherichia coli haemolysin-induced intestinal leakage in mice. <i>Scientific Reports</i> , <b>2017</b> , 7, 45649	4.9	19
30	Glucocorticoid receptor is indispensable for physiological responses to aldosterone in epithelial Na <sup>+</sup> channel induction via the mineralocorticoid receptor in a human colonic cell line. <i>European Journal of Cell Biology</i> , <b>2011</b> , 90, 432-9	6.1	18
29	Hereditary barrier-related diseases involving the tight junction: lessons from skin and intestine. <i>Cell and Tissue Research</i> , <b>2015</b> , 360, 723-48	4.2	16
28	ENaC Dysregulation Through Activation of MEK1/2 Contributes to Impaired Na <sup>+</sup> Absorption in Lymphocytic Colitis. <i>Inflammatory Bowel Diseases</i> , <b>2016</b> , 22, 539-47	4.5	16
27	Anti-diarrheal mechanism of the traditional remedy Uzara via reduction of active chloride secretion. <i>PLoS ONE</i> , <b>2011</b> , 6, e18107	3.7	15
26	Disorders of intestinal secretion and absorption. <i>Baillieres Best Practice and Research in Clinical Gastroenterology</i> , <b>2009</b> , 23, 395-406	2.5	15
25	Restoration of ENaC expression by glucocorticoid receptor transfection in human HT-29/B6 colon cells. <i>Biochemical and Biophysical Research Communications</i> , <b>2006</b> , 344, 1065-70	3.4	13
24	Claudins in Intestinal Function and Disease. <i>Current Topics in Membranes</i> , <b>2010</b> , 195-227	2.2	12
23	Yersinia enterocolitica Affects Intestinal Barrier Function in the Colon. <i>Journal of Infectious Diseases</i> , <b>2016</b> , 213, 1157-62	7	11
22	The plant-derived glucocorticoid receptor agonist Endiandrin A acts as co-stimulator of colonic epithelial sodium channels (ENaC) via SGK-1 and MAPKs. <i>PLoS ONE</i> , <b>2012</b> , 7, e49426	3.7	11
21	The mechanism of diarrhea in HIV is based on an impaired epithelial barrier function that could be induced by a specific cytokine pattern. <i>Annals of the New York Academy of Sciences</i> , <b>1998</b> , 859, 267-70	6.5	11
20	Tilivalline- and Tilimycin-Independent Effects of on Tight Junction-Mediated Intestinal Barrier Impairment. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	11
19	Myrrh exerts barrier-stabilising and -protective effects in HT-29/B6 and Caco-2 intestinal epithelial cells. <i>International Journal of Colorectal Disease</i> , <b>2017</b> , 32, 623-634	3	10
18	Tricellulin Effect on Paracellular Water Transport. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	10
17	A colonic mineralocorticoid receptor cell model expressing epithelial Na <sup>+</sup> channels. <i>Biochemical and Biophysical Research Communications</i> , <b>2009</b> , 382, 280-5	3.4	9
16	Impairs Sodium Absorption in Colonic Epithelium via ENaC Dysfunction and Claudin-8 Disruption. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	8
15	Campylobacter fetus impairs barrier function in HT-29/B6 cells through focal tight junction alterations and leaks. <i>Annals of the New York Academy of Sciences</i> , <b>2017</b> , 1405, 189-201	6.5	8

14	Clinical models of intestinal adaptation. <i>Annals of the New York Academy of Sciences</i> , <b>1998</b> , 859, 127-38	6.5	8
13	Expression of tricellular tight junction proteins and the paracellular macromolecule barrier are recovered in remission of ulcerative colitis. <i>BMC Gastroenterology</i> , <b>2021</b> , 21, 141	3	7
12	The Punicalagin Metabolites Ellagic Acid and Urolithin A Exert Different Strengthening and Anti-Inflammatory Effects on Tight Junction-Mediated Intestinal Barrier Function. <i>Frontiers in Pharmacology</i> , <b>2021</b> , 12, 610164	5.6	7
11	Zinc prevents intestinal epithelial barrier dysfunction induced by alpha-hemolysin-producing <i>Escherichia coli</i> 536 infection in porcine colon. <i>Veterinary Microbiology</i> , <b>2020</b> , 243, 108632	3.3	6
10	Resveratrol Alleviates Acute Induced Enterocolitis in a Preclinical Murine Intervention Study. <i>Microorganisms</i> , <b>2020</b> , 8,	4.9	5
9	Altered Structural Expression and Enzymatic Activity Parameters in Quiescent Ulcerative Colitis: Are These Potential Normalization Criteria?. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	4
8	Ion Channels of the Gastrointestinal Epithelial Cells <b>2018</b> , 1363-1404		4
7	Norovirus non-structural protein p20 leads to impaired restitution of epithelial defects by inhibition of actin cytoskeleton remodelling. <i>Scandinavian Journal of Gastroenterology</i> , <b>2010</b> , 45, 1307-19 <sup>2</sup> .4		3
6	Zinc strengthens the jejunal barrier by reversibly tightening the paracellular route. <i>American Journal of Physiology - Renal Physiology</i> , <b>2017</b> , 313, G537-G548	5.1	3
5	Diarrheal Mechanisms and the Role of Intestinal Barrier Dysfunction in <i>Campylobacter</i> Infections. <i>Current Topics in Microbiology and Immunology</i> , <b>2021</b> , 431, 203-231	3.3	2
4	Epithelial barrier dysfunction as permissive pathomechanism in human intestinal graft-versus-host disease. <i>Bone Marrow Transplantation</i> , <b>2018</b> , 53, 1083-1086	4.4	1
3	New insights into intestinal secretion. <i>Gut</i> , <b>2014</b> , 63, 1371-2	19.2	1
2	Phospholipid effects on SGLT1-mediated glucose transport in rabbit ileum brush border membrane vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2019</b> , 1861, 182985	3.8	0
1	Role of the Epithelium in Diseases of the Intestine. <i>Physiology in Health and Disease</i> , <b>2020</b> , 77-109	0.2	